

"Creating Centers": A Reflection on the Julia Carson Community Center

An Honors Thesis (ARCH 302)

By

Ashlyn Ackerman

Thesis Advisor

George Elvin

A handwritten signature in black ink, appearing to read "Geo Elvin". The signature is fluid and cursive, with the first name "Geo" and the last name "Elvin" clearly distinguishable.

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Abstract

Architecture always begins with two components: a client and an idea. The role of 'client' may be expanded to include an owner, a user group, an entire community, or even a person or event memorialized. The 'idea' makes the building unique, and it evolves as the project develops, gaining depth and cohesion with each iteration of design. Add competition to this, and the intensity amplifies. Client, idea, and competition came together in the design for the Julia Carson Community Center, entered into the 2011 Gresham-Smith design competition administered by the Ball State University College of Architecture and Planning. The competition entry titled "Creating Centers" focuses on sustainability, community connections, and catalyst design. A reflection of the design process and completed work also examines the success of a partnership in competition and reveals areas of further improvement.

Acknowledgements

I would like to thank my partner, Tyler Schwede, for working with me and sharing his design talents. Throughout the course of the project, we learned the importance of choosing a competition partner that will simultaneously complement your own design skills and question your ideas, pushing the concept to its full potential.

I would like to thank George Elvin for advising me during the development of the project, and serving as advisor during my thesis completion.

I would like to thank Andrea Swartz for critiques and encouragement throughout the design development.

I would also like to thank the Honors College for their accommodation and support.

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"Noble life demands a noble architecture for noble uses of noble men."

– Frank Lloyd Wright

The Julia Carson Community Center features a series of 'centers' designed to unite the scheme and provide spaces for gathering, collaboration, visibility, and celebration. Recognizing how good, sustainable design can positively impact a community, the building and site are intended to be a catalyst for neighborhood change and strengthen community bonds. The JCCC draws connections throughout the site, within the Fall Creek Neighborhood, and in the greater Indianapolis area. A showcase feature of the main building draws attention to the entire scheme, highlighting it, and establishing it as a beacon of light in a formerly 'dark' neighborhood.

In the spring of 2011, the annual Gresham-Smith design competition was held in conjunction with the ARCH 302 studio in the College of Architecture and Planning. Competitions are an integral part of design education at CAP and expose students to clients, sites, and architectural challenges previously unexplored, while giving them a chance to propose innovative ideas and push the limits of their skills as a young architect. Design competitions also give students the opportunity to collaborate with classmates, and make them aware of the importance of choosing a good partner. This thesis will reflect on a design proposal for the Julia Carson Community Center for the Gresham-Smith design competition in three parts: first, a summary of the concepts and green technologies employed in the scheme, with accompanying precedent examples; second, an examination of the partnership process, its challenges and lessons learned

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by overcoming these obstacles; and third, a post-completion critique of the design, citing improvements that could have been made, a part of design education that is not often explored. Through the explanation of the project, design as a process will also be explored, revealing the necessary steps and depth of thought needed to create successful architecture.

All architecture begins with a client. Most often, the client is literal, the owner, the person calling the shots and paying the bills. In most projects, the client is also the user-group, or the people using the building or space, who have needs and wants which are just as important to consider as the owner's. The client could also be silent, like the environment, local flora and fauna, or the civic fabric, but all as equally important with distinct needs. In the case of the Gresham-Smith competition, the client was in memoriam, requiring a great deal of research about the life of the honoree, and some degree of speculation about her goals for the design. In honor of the late Indiana Congresswoman, Julia Carson, a community center was to be designed for the Fall Creek Neighborhood of Indianapolis, a project she had planned to commission before her passing, according to her son, Sam Carson. (1)

The first step in memorializing the Congresswoman was to understand her as a person, which was done in a presentation by her son, Sam Carson, on March 2, 2011 at the site where the new community center would be located. Overcome with emotion, Ms. Carson's son expressed his appreciation for the students taking on this project, assuring that his mother would be touched as well. Sam Carson spoke of her upbringing, telling the full story of how she came from a life of poverty and hardship, overcoming obstacles to serve as a state representative, and becoming the first African-

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American woman to represent the 7th District in Congress. "In her entire political career, she was always about the people, not the perks," Carson explained, "She lived in this neighborhood, understood its problems, and wanted to do something for the people in the community here before she got sick." Julia Carson died in December of 2007 before getting the opportunity to build a community center for the Fall Creek neighborhood she loved. (1)

In addition to insights about her life, Congresswoman Carson's son shared some design ideas he had for the project. "Community pride" was first on his wish list, asking for a building that the neighbors would be proud of and want to visit often. He wanted the center to be user-friendly, "like a mall," he explained, "where all the social agencies are in one place for people to utilize." A stately, important-looking building, "like the White House," was also desired by Carson, hoping to give the neighborhood an architectural connection to the rest of downtown Indianapolis. Finally, Carson offered an idea for memorializing his mother, a "Mothers' Wall," he called it, which would honor his own and all mothers. To conclude, he again spoke of "making a dream a reality" through the partnership with Ball State CAP, and also his appreciation.

With the client's ideas in mind, the next step in designing the Julia Carson Community Center was formulating an overall concept, or "big idea" that would guide design decisions throughout the project. It was here that the first challenges of working with a partner in a competition occurred. Because the project must be of equal input and both partners must agree on ideas, extensive discussion and brainstorming was needed to hone in on what we both felt was most important. To accomplish this daunting task, we chose to formulate concepts on our own, then compare them and find

similarities to build upon. The initial concept, represented in media form (Fig. 1.1), highlights topics that would be central to the overall design thinking. These include blending family and community in one place, improving the streetscape to create a safer neighborhood for pedestrians, using community gardens to foster mutual responsibility and teach children about agriculture, honoring the mothers of the community and Julia Carson, and creating a building that the local people would be proud to use, improving the overall look of the neighborhood. My partner and I envisioned the JCCC to be a catalyst for change, making the area a safer, more enjoyable place to live, and by helping people with the services housed inside, extend positive change far beyond the limits of the Fall Creek neighborhood. We saw Julia Carson herself as being symbolic of a 'catalyst for change' and thought that the community center bearing her name should embody the idea as well.

Our inspiration for this idea came from a precedent study of the Gary Comer Youth Center in Chicago, designed by John Ronan. In this example, the architect had a difficult task of designing a youth center in a very unsafe neighborhood. His solution was to focus on a positive activity in the community to combat all the negative activity, in this case, the local youth drill team. Because of the success the youth center had on the team, the neighborhood as a whole began to improve because the community was proud of the new building. The design was able to 'turn on the light' for a neighborhood that 'knew only fear after dark.' (2) We wanted to incorporate many of the themes present in the Gary Comer Youth Center into our design for the JCCC, especially its quality to precipitate change in the neighborhood.

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As the project developed, however, the concept developed as well. When trying to translate these abstract ideas into architectural expression, we stumbled upon a core theme of our design decisions, 'creating centers.' The rationale that a community center should be a center for the community is not a difficult one to come upon, but it was the mere juxtaposition of the two words that guided the project throughout its evolution. "Creating Centers" was ultimately decided upon as the project title, and the theme is present in many different aspects of the design.

The first 'center' created is evident in the site plan (Fig. 1.3). The mass of the buildings and other programmatic site elements are all focused upon an open courtyard, which slopes down in elevation to guide people to the gathering space. The courtyard is surrounded by an open air market where local vendors can sell their goods, a transitional housing component, a community garden to be used and cared for by local volunteers, a biking and walking path that connects several other green spaces in nearby neighborhoods, an amphitheater seating area, outdoor dining for a restaurant, a fountain, and the building components of the community center. We intended this area to be a hub of activity which can be seen from all buildings, drawing connections throughout the site and linking program pieces. To better encourage these connections, and draw visitors to areas of the site, we incorporated a specific path-lighting strategy. Cloudy polycarbonate 'beacons,' lit from within, line important paths throughout the site, and provide security for nighttime outdoor activities. The lights were inspired by a circulation core on the main building, and metaphoric of the 'beacon of light' we envision the JCCC to be.

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The entire scheme takes on a 'campus-like' feel, an inspiration from another precedent study, the Valley of Herault Community Center in France by N+B Architects. In this example, the campus or complex-arrangement of program elements created a grid organization, with a single element that breaks the grid. (3) My partner and I saw strategies that could be applied to our Fall Creek site, a highly gridded neighborhood (Fig 1.2) with Fall Creek Parkway breaking the grid with a bold diagonal. Arranging most of our site program pieces on the grid, we skewed the most important program piece to match the diagonal of the busy parkway, giving it a strong urban street presence and highlighting the main feature of the complex.

The next 'center' was created within the plan. The program of the community center included three main elements: the social services offices, a library and memorial foundation, and a health/wellness and gymnasium component. Of these three components, we decided that the one to break the grid of the site would be the health/wellness center, as seen in the site plan (Fig. 1.3). As a hub of activity itself, the gymnasium served as an excellent counterpart to the open courtyard below. The gymnasium is also elevated, supported by the two community center components supporting it, and creating more open space below. The main 'center' of the building masses is created by the alignment of three circle patterns: the first as a circular memorial fountain to Julia Carson and all mothers, the second as the logo of the JCCC (Fig. 1.5) featured in the center of the basketball court (Fig. 1.6), and the third as a glass oculus skylight in the roof of the gymnasium, accessible on the green roof. The vertical alignment of these three centers also unite three main goals of the composition: sustainability (the green roof), community (the gymnasium), and celebration (the

memorial fountain). (Fig. 1.4) Additional, smaller 'centers' were created as breakout spaces in hallways, between office blocks, and as lounges overlooking floors below. These relationships can be viewed on the plans and sections on the overall board layout (Figs. 2.1-2.4). Visual connections among spaces would help to enforce the community connections we wanted our design to encourage.

The next step in the process of designing the Julia Carson Community Center was determining the architectural language of the building. Up until now, the design collaboration between my partner and me had been smooth, but our difference of opinion on architectural style created challenges in this phase of design. My preference was that the community center be constructed of stone, giving it a stately presence and the sense that it had always been part of the neighborhood. My partner preferred a modern look to the building, citing that the building would fit better into the greater urban context and truly be a showcase for the neighborhood. After much discussion, we were able to understand and agree with each other's reasons for the choice of a specific style, but were no closer to coming up with the look of our building facades. We decided to let our design concepts make the decision for us.

In the design of our site plan, we chose to 'break the grid' by turning the gymnasium component to match the diagonal of Fall Creek Parkway. Likewise, in determining the architectural style for the building, we allowed that component to 'break the grid,' or be different than the local traditional style. The health/wellness component became the 'jewel' of the entire scheme, supported by the two more traditional pieces of the community center. We wanted the library, memorial foundation, and social services offices to project stability, safety, and support; whereas the gymnasium, we thought,

should represent a lightness of visibility and excitement. The dichotomy of our design began here, with the distinction between heavy and light, solid and see-through, stone and glass, traditional and modern, contextual and showcase (Fig. 1.7).

In keeping with the architectural style of the neighborhood, the east and west community center buildings are constructed of concrete and stone, with wide columns and tall windows. The layout of these buildings relies heavily upon the grid of the columns, and wayfinding is linear and intuitive. In contrast, the health/wellness component is a translucent glass box, with steel supports, glass louvers and curtain walls, and an abundance of progressive green technologies. The layout of this component is centered upon the gymnasium, and privacy increases in the program with each rising floor level, with open plans and flex-spaces allow it to be a very versatile environment. Because of its ‘glass-box’ design, the façade of the health/wellness component takes on a dichotomy of its own in the difference in its appearance in day and night (Fig 1.8). During the day, the box reads as a solid prism, aligning with the horizon, but at night, illuminated angled windows in the double-skin façade make the circulation path inside the building appear to rise up in a similar diagonal that the building in plan is set on. The ‘beacon of light’ affect this has will highlight the building’s evening activities, and provide natural security from the cars travelling along Fall Creek Parkway.

Another essential factor in making the JCCC a showcase building was incorporating many different types of sustainable technologies, not only in the building design, but the design of the site and its relationship to the community as well. Green strategies must be incorporated as part of the initial design process, and this project

was no exception. The depressed open courtyard 'center' was created as a clever way to capture rainwater from non-permeable surfaces. The entire site slopes toward the center (Fig. 1.9), and two channels along either side of the biking/walking path capture runoff and bring it to a large fountain in the open courtyard. The fountain then pumps the water over itself, clearing the water and making it an interactive and education part of recreation. Collection cisterns below the fountain store excess filtered rainwater to be used for grey water purposes like flushing toilets.

In order to control rainwater in times of peak precipitation, site features including bioswales and the community garden will help use much of the excess water before it overloads the collection system. Also, intensive green roofs atop the west community center and a portion of the health/wellness component utilize rainwater and control runoff, as well as creating usable green space for relaxation and recreation.

A major sustainability concern we had involved the heat gain and loss of our showcase health/wellness component. With such large expanses of glass, the building has the high potential to be very costly to keep temperate. Sustainable technologies had to be used, especially to cool the building, and we chose to incorporate a double skin façade curtain wall. The outer skin is covered in translucent solar glass louvers (Fig.1.10), absorbing solar energy, which keep it from entering the building, and also convert it into electricity. The double skin façade also creates a temperate air space which experiences most of the extreme heating and cooling changes, keeping the inside temperature moderate (Fig. 1.11).

Another sustainable strategy used in the design was vegetation-aided cooling. Through cross ventilation across courtyard plants, the east and west community center buildings are cooled over all floors (Fig. 1.12). The most important example of vegetative cooling is present in the living wall affixed to the glass circulation core of the gymnasium component. The trellis system allows vines, mosses, and other climbing plants to grow upward, and through these plants, warm air is cooled before coming into contact with the large expanses of the glass curtain wall (Fig. 1.13). While the living wall serves an important sustainable purpose, it is also symbolic of the building's numerous other green strategies. By placing such an ostentatious green element on a focal point of the entire design, a viewer is immediately introduced to the building's commitment to sustainability (Fig. 1.14).

In addition to reducing heat gain, we also explored the possibilities for solar collection within the project. By using concrete and stone as a construction material in the east and west community center buildings, thermal mass became available for heat gain during the heating season. With some directional and sun angle specific louvers on the tall windows of the building, warmth from winter sun is used to heat a space, while keeping out unwanted summer heat gain. Intensive green roofs also provide excellent insulation, keeping the inside temperature moderate and stable. Finally, we also used solar collection panels on the health/wellness component, east community center building, and roof structure of the open-air market to convert solar energy into electricity for the building (Fig. 1.15).

With the design finalized, the final step in completing the Julia Carson Community Center was creating the presentation materials, more specifically, the

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boards and model which describe the project and ‘sell’ it to the client. Design competitions are different from usual architecture studio projects because a formal presentation is not part of the judging process. Unable to explain the many complex ideas that went into the design and answer clarifying questions, the boards and model are the only means of telling the story of the scheme. Visual appeal and an attention grabbing quality are also very important when trying to impress judges, and it was because of these reasons, that my partner and I put substantial effort into the design and layout of our boards and model. We wanted to project a theme that reinforced our concepts, told the full story of our project, and caught the attention of passersby. We chose a unifying color scheme of cool colors: blues, greens, cool greys, and our signature color, lavender. The purple hue was used in every drawing, rendering, and in the construction of the model to create coherence.

When laying out the boards, we first ensured that we had all required components, the right number of technical drawings, renderings, and diagrams, distributed among three 24x36 boards. The images were composed into a logical arrangement, explaining concepts from broad to most specific, from top to bottom. Images are linked by diagonal lines and blocks of color, reinforcing the ‘drawing connections’ aspect of the design. Finally, succinct, explanatory text completed the layout and the story. The entire board layout can be seen in supplement 2 (Figs. 2.1-2.4). The model we chose to craft in great detail, affixing every louver and beacon path light, complete with working lights. Model photographs are featured in supplement 3. When displayed as a whole on competition day, the project materials read as unified, and represented my partner’s and my best efforts as young architects so far.

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Another shortcoming of the project, influenced by its overall size, was the atmosphere of the memorial fountain space below the elevated health/wellness component. We chose to elevate the building to create sightlines from Fall Creek Parkway through the site, showcasing the biking/walking path and open courtyard activity. But upon completion, it was evident that the proportions of the space were off. The area was large, but the building was not elevated enough to create the openness we desired. As a result, the space felt dark and cavernous, not the kind of space that would draw in visitors as intended.

The problem with the aforementioned space is a direct result of the lack of development time we had to devote the relationship between the health/wellness component and the community center buildings flanking it. My partner and I hoped to achieve a style that expressed the dichotomy of heavy and light, opaque and translucent, traditional and modern. The task of distinguishing between heavy and light was least developed, and the result was a center building that because of its program size, appeared heavy and massive, no matter how much glass and steel it contained. Square footage revisions of the plan and a redistribution of space within the mass could have improved this challenging design issue, and because of the wishy-washy design language, the structural, tectonic, and ornamental connections between the two styles suffered as well.

Despite these noted areas of improvement, I feel that my partner and I created a successful project, each contributing our own skills to push the design to its full potential. I think that many of the shortcomings that we analyzed in our final design could have been solved if client input were present throughout the design process, not

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to maintain a unified scheme. I am also skilled at graphic design and story-telling through visual layouts and branding, and am detail-oriented and proficient at model construction. The synthesis of our personal skills would ensure the complete and professional development of the design, creating the best chances for us in the competition.

While we were each glad to benefit from the other's specific talents, we soon found that along with double the skills, with two designers comes double the opinions. We encountered numerous disagreements, especially in the early stages of the project, when coherence was most important. Disputes over concept, style, programmatic pieces, and other essential architectural decisions were discussed at length, each of us presenting our point of view, with supplemental examples, and hearing the other's ideas in return. An open stream of communication kept the ideas flowing, and ultimately led us to agree on a compromise of both of our ideas.

When two passionate, and at times stubborn, creative thinkers come together, disagreements are inevitable, and our situation was an example of this. From a difference of opinion to late-night frustrations to hastily-built incorrect study models, we experienced our share of arguments. Quickly we discovered that we needed to devise a strategy to remain successful partners and successful friends when disputes arose. Our solution was to divide the two relationships. We scheduled specific times to work on our design together, and always did our work in the studio environment. When working, we were no longer friends, and when our work was finished for the day, we were no longer partners and could leave our arguments in studio. The solution worked wonderfully, and Tyler and I remained close friends throughout the project. It is my

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belief that because we developed a mutual respect for the other person's professional skills, we were able to become even closer friends, appreciating the other person's role as a designer. If given the chance, I would gladly partner with Tyler again, and I think that the lessons we learned throughout this process has prepared us for future partnerships and would make future projects even more successful than this one.

The reflection process for this project has been very beneficial for me, in analyzing my own work, and documenting my efforts and the depth of complex thought that goes into each project. Partnership in a design competition was a new experience for me, and I am fortunate to have a positive story to relate, but much of that success can and should be attributed to my wonderful partner, Tyler Schwede, and the talents and hard work he contributed. Together, we created the project that I have been most proud of in my college career, and I am pleased to complete the documentation process with this final analysis. To the best of our combined abilities, we achieved what we set out to do: create a noble architecture for noble uses of noble men, in honor of a noble life, Congresswoman Julia Carson. It was an honor to learn about and pay tribute to a woman that cared so deeply for her community, and to touch the lives of those she was closest to, especially her son, Sam Carson. Although it was not an official architecture capstone assignment, I feel that this project best represents the synthesis of my abilities of four years of design education at Ball State, with the support and encouragement of my equal partner, and this reflection will serve as a basis and model for further post-completion analyses of my future projects. I am confident in my abilities as a designer and feel ready to take the next step in my architectural education and career.

SUPPLEMENT 1 – Individual Drawings, Diagrams and Renderings



Fig. 1.1 Overall concept represented in media form, highlighting central design ideas.



Fig. 1.2 Site plan in relation to context density and organization.

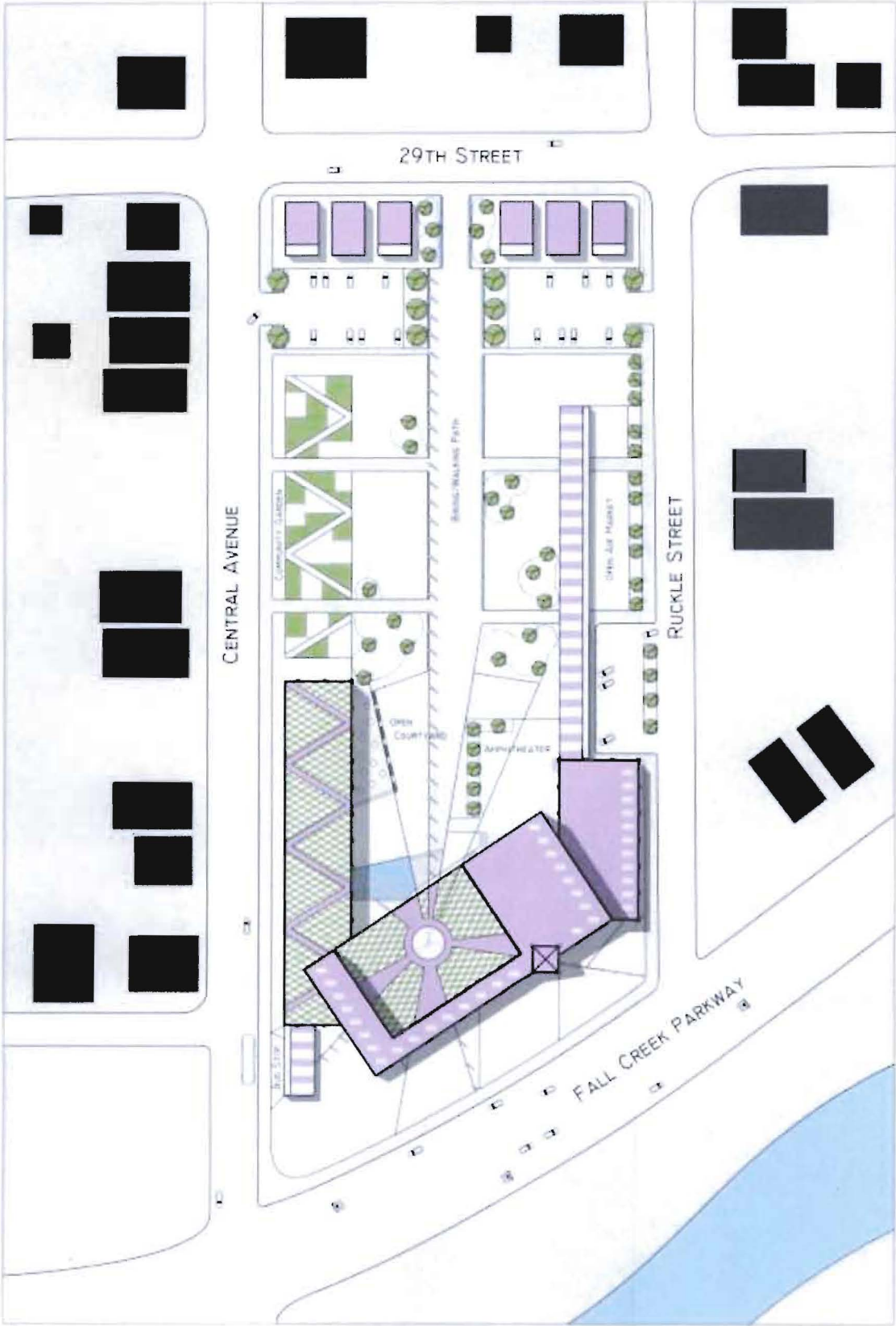


Fig. 1.3 Site plan in relation to immediate civic context.

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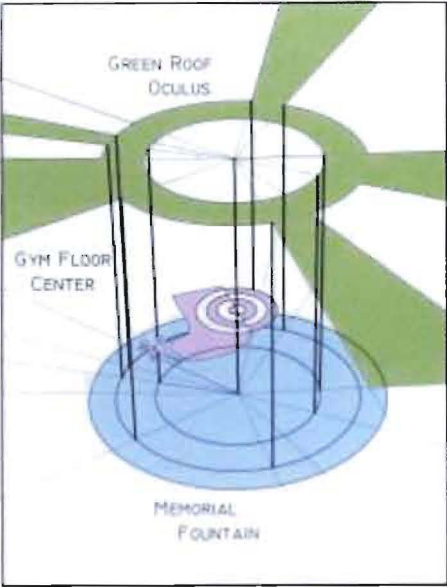


Fig. 1.4 'Centers' diagram.



Fig. 1.5 JCCC logo design.



Fig. 1.6 Gymnasium center court logo and oculus skylight to green roof.

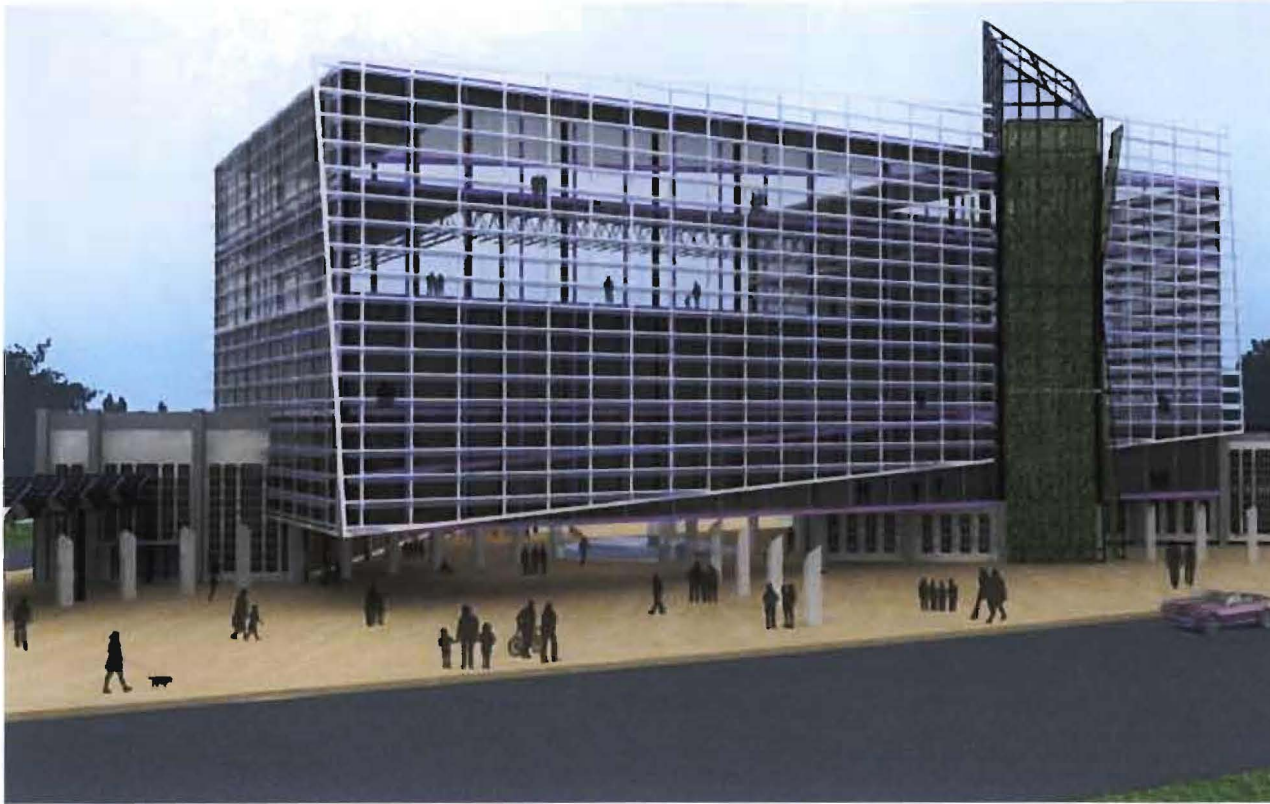


Fig. 1.7 View of JCCC from Fall Creek Parkway, showing dichotomy of architectural style, composition of building elements, and several sustainable strategies.

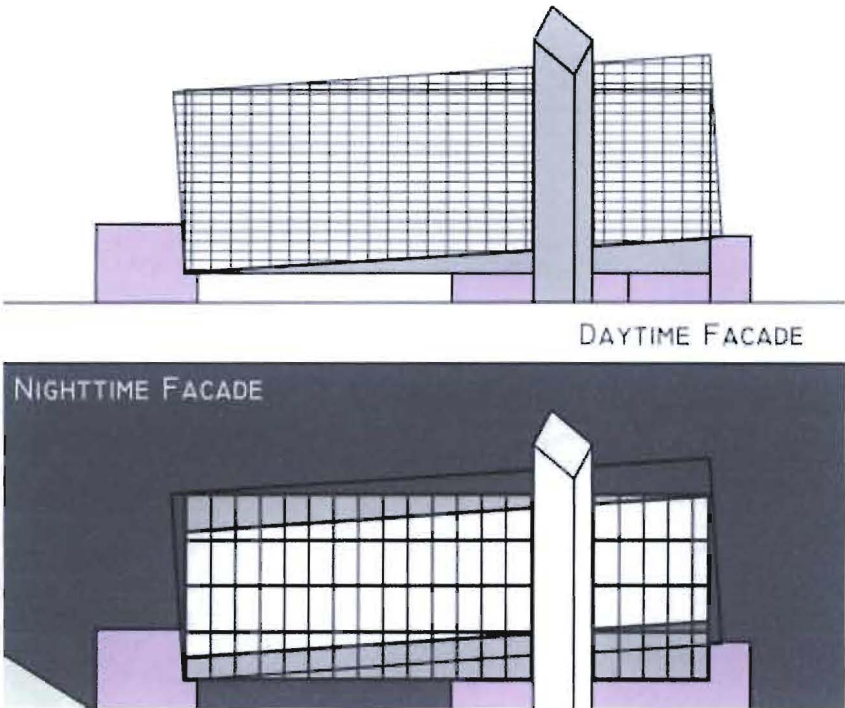


Fig. 1.8 Showcase Façade Dichotomy, perceived building mass difference in day/night.

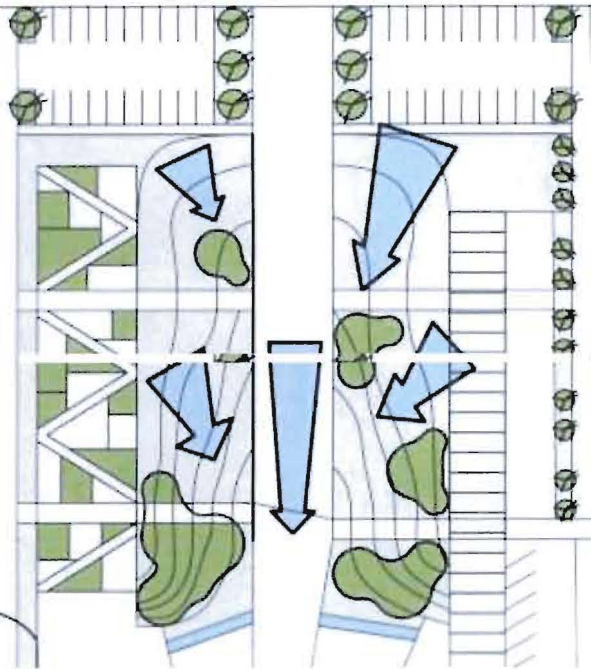


Fig. 1.9 Rainwater management & collection.

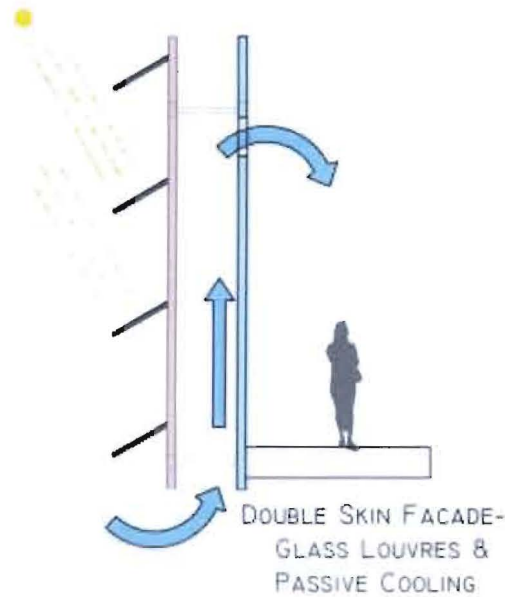


Fig. 1.11 Double skin façade on showcase heath/wellness component.

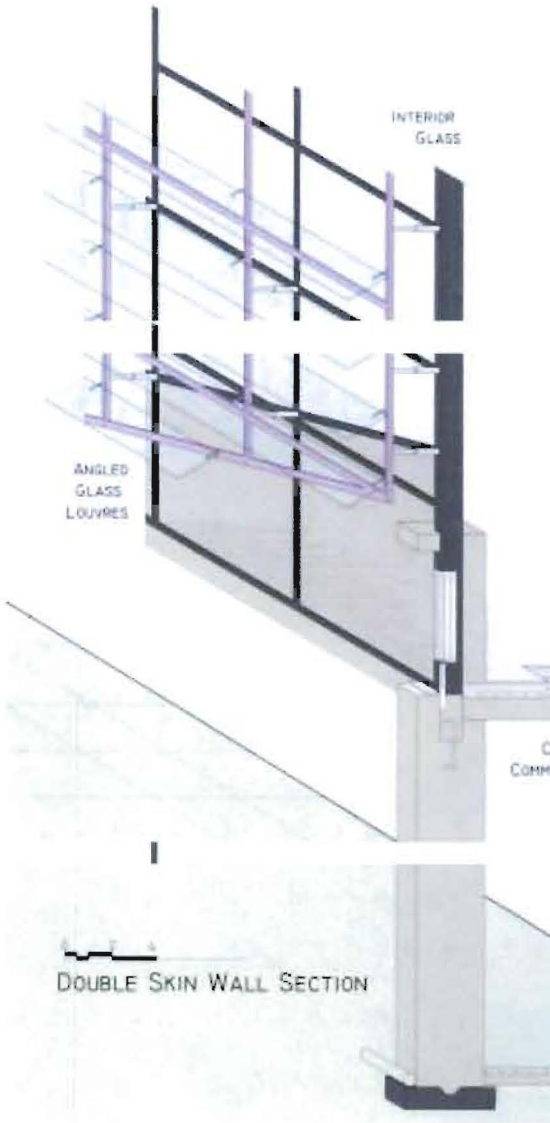


Fig. 1.10 Translucent solar glass louver double skin façade.

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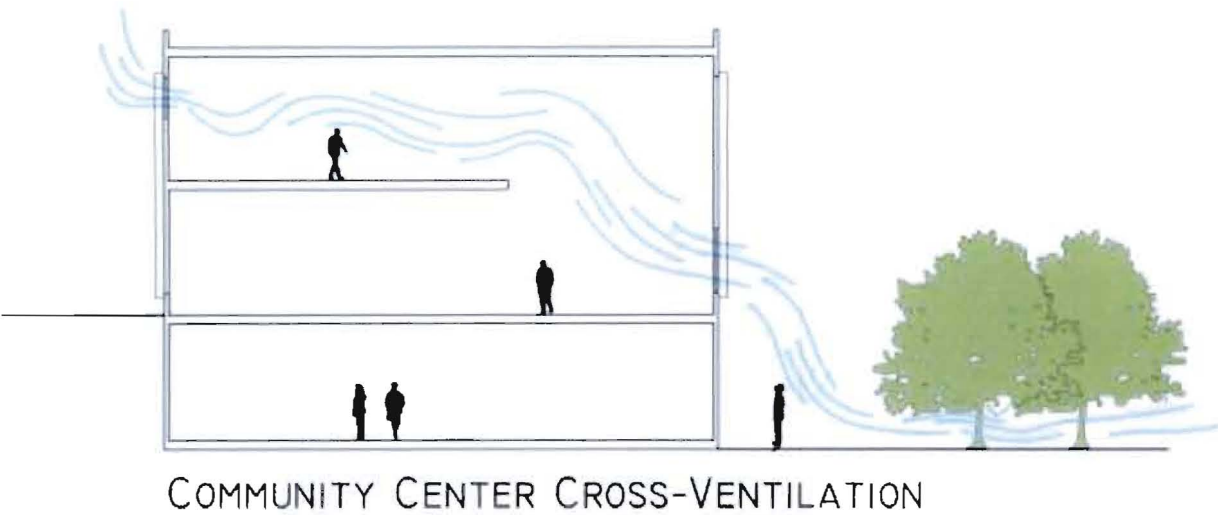


Fig. 1.12 Cross ventilation with vegetation.

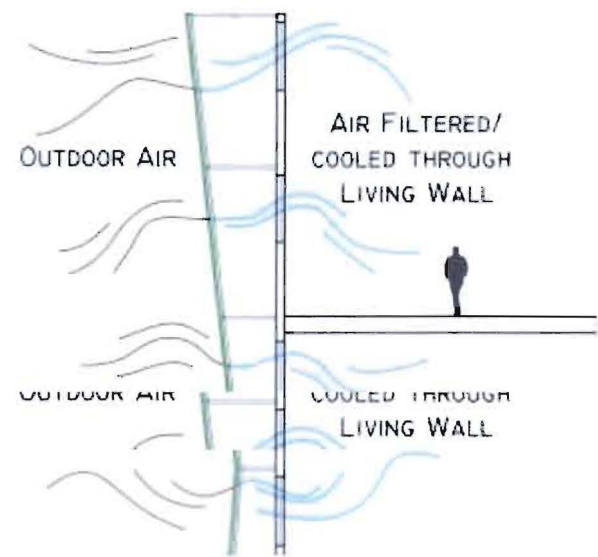


Fig. 1.13 Living wall cooling.



Fig. 1.14 Circulation core with living wall.

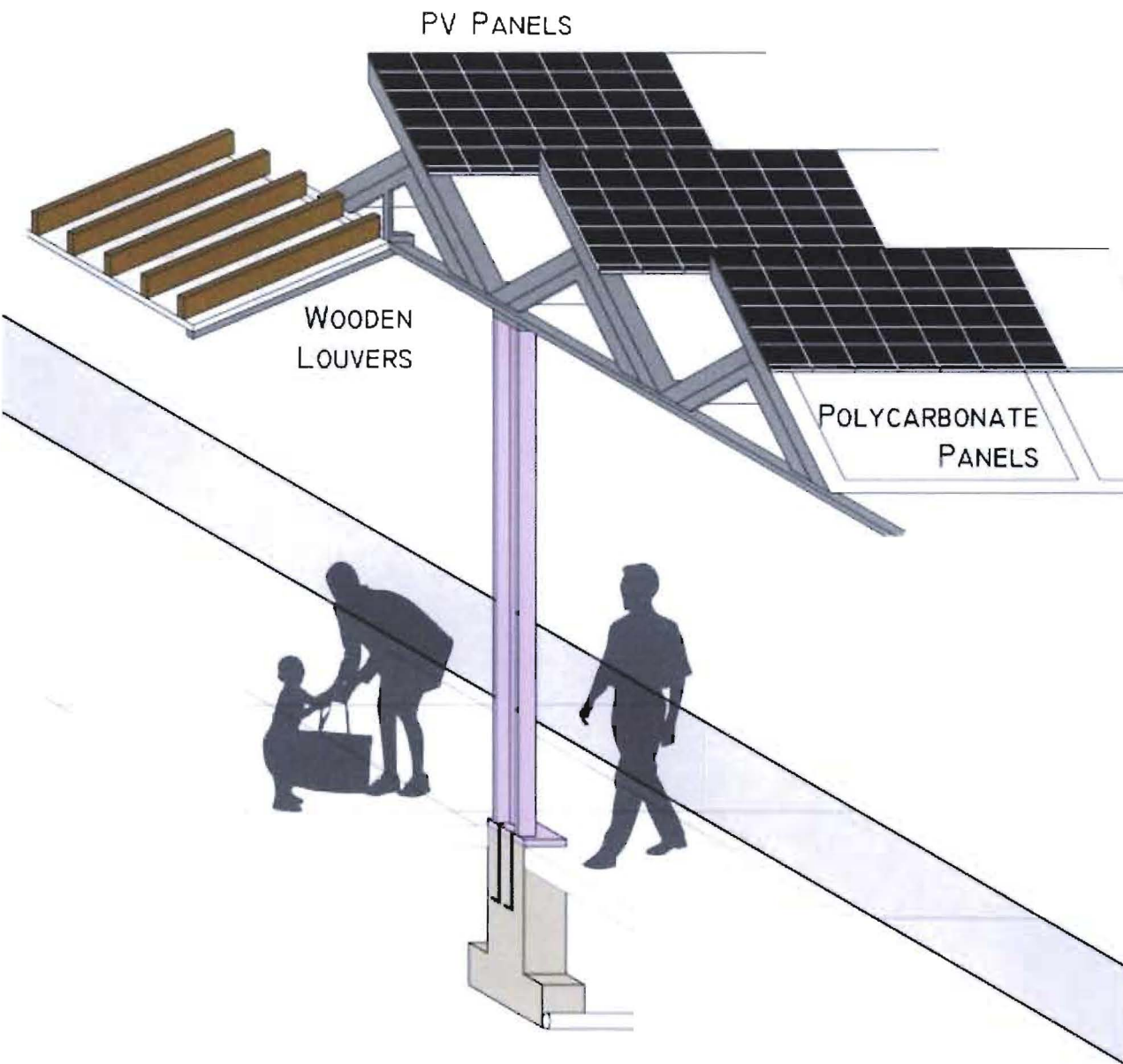


Fig. 1.15 Solar panels and louvers to convert and control sunlight on open-air market roof

SUPPLEMENT 2 – Overall Board Layouts (Composition and Stand-Alone)



Fig. 2.1 Overall Competition Board Layout

CREATING CENTERS

INDIANAPOLIS, IN

JULIA CARSON COMMUNITY CENTER

2011 GRESHAM SMITH DESIGN COMPETITION

The Julia Carson Community Center features a series of 'centers' designed to unite the scheme and provide spaces for gathering, collaboration, visibility, and deliberation. Recognizing how good, sustainable

DESIGN CAN POSITIVELY IMPACT A COMMUNITY.

THE BUILDING AND SITE ARE INTENDED TO BE A **CATALYST** FOR NEIGHBORHOOD CHANGE AND STRENGTHEN COMMUNITY BONDS. THE JCCC DRAWS **CONNECTIONS** THROUGHOUT THE SITE, WITHIN THE FALL CREEK

NEIGHBORHOOD, AND IN THE GREATER INDIANAPOLIS AREA. A

FEATURE OF THE MAIN BUILDING

DRAWS ATTENTION TO THE ENTIRE SCHEME, HIGHLIGHTING IT, AND ESTABLISHING

IT IS A BEACON OF

LIGHT IN A

FORMERLY "DARK"

NEIGHBORHOOD.

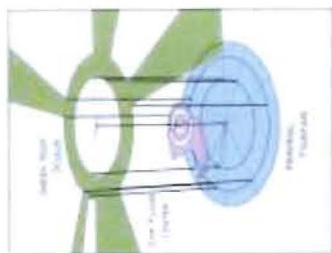
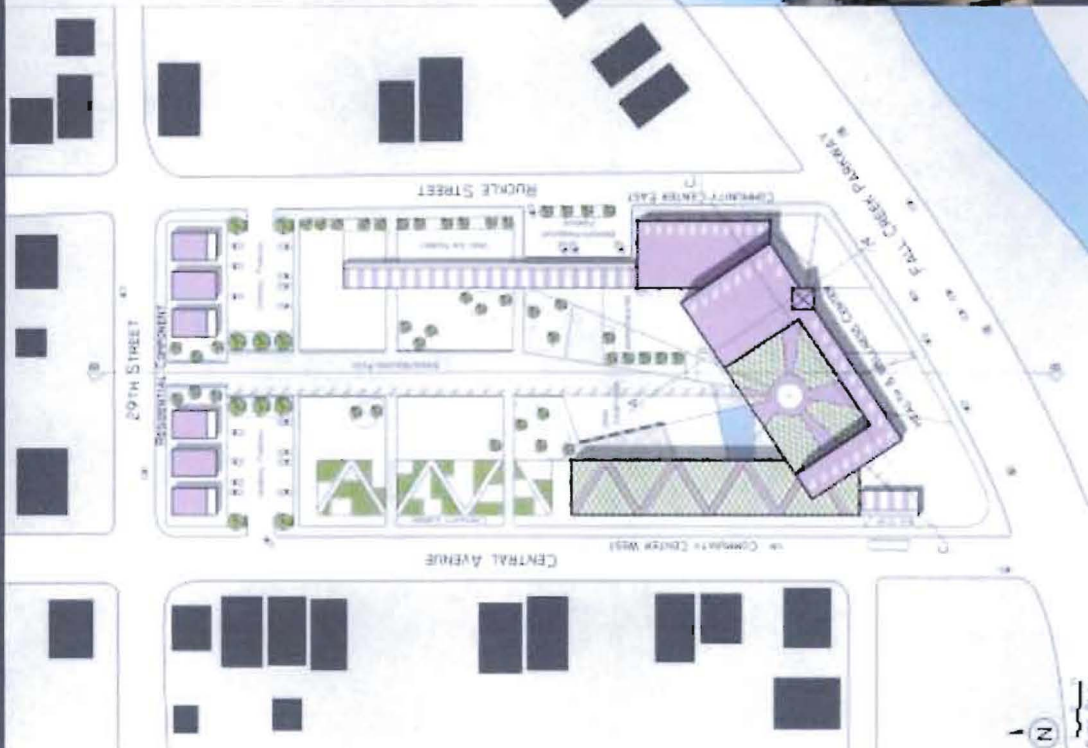


TABLE 1
DISTRICT CENTERS
OF THE BUILDING ARE
CONNECTED VERTICALLY,
LINKING THE THREE MAIN
GOALS OF THE COMPETITION:
SUSTAINABILITY (THE GREEN
FLOOR CENTER), COMMUNITY (COMMUNAL
FLOOR CENTER), AND CELEBRATION
(GOLD CARDS FORMAL FLOOR ARE)

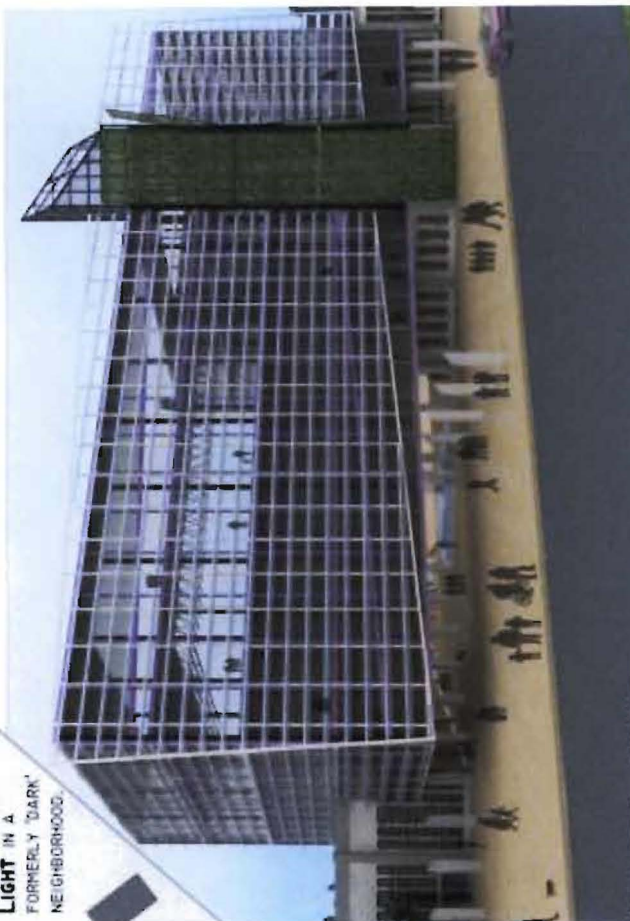


Fig. 2.2 Competition Board 1 Layout

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Fig. 2.3 Competition Board 2 Layout

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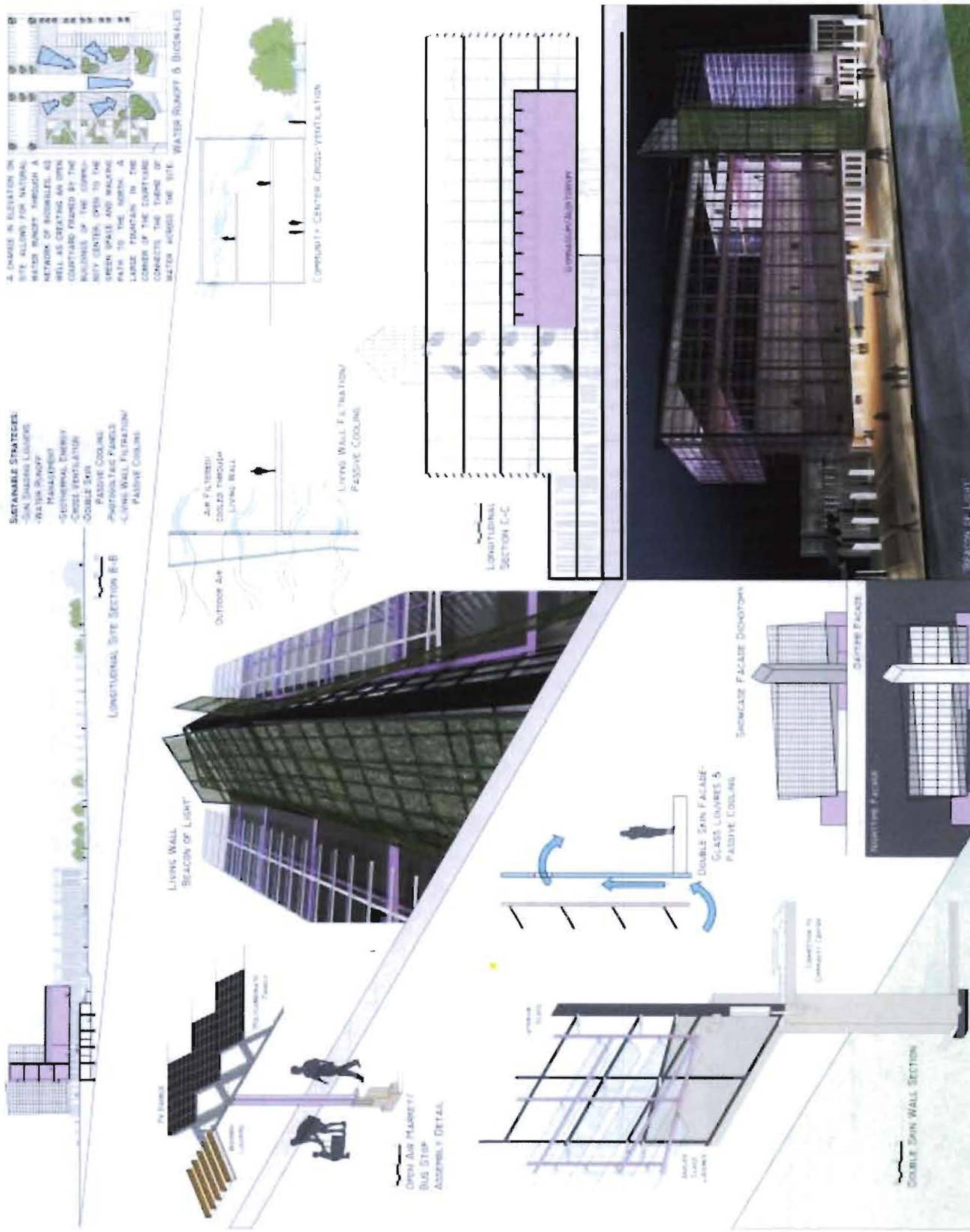
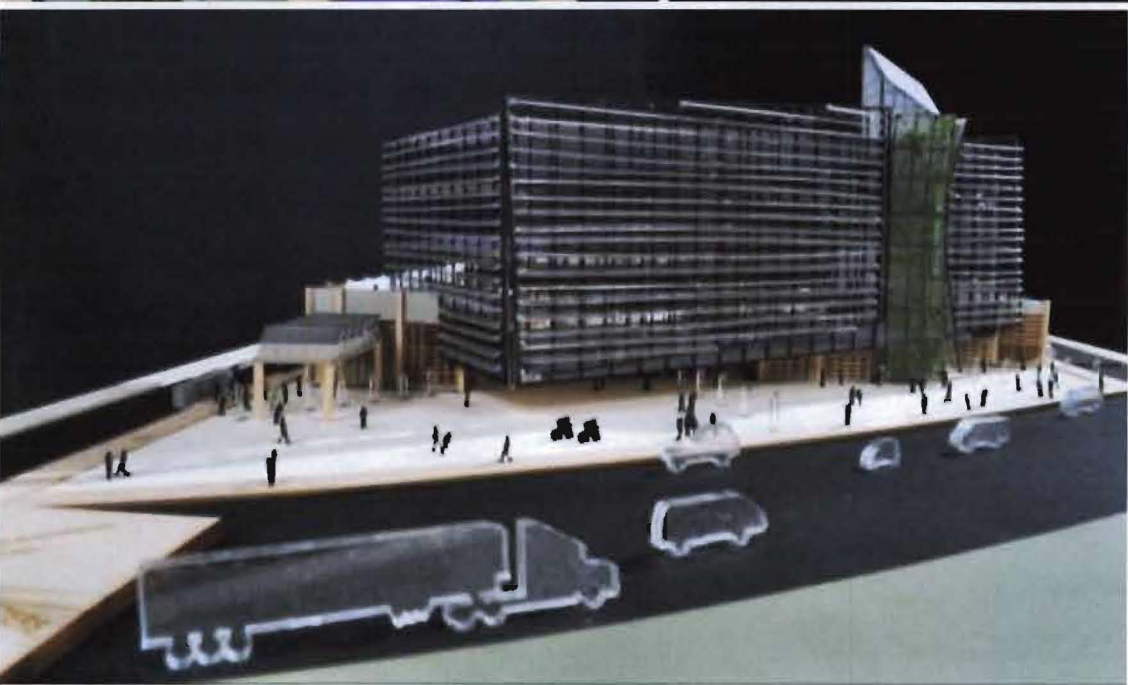


Fig. 2.4 Competition Board 3 Layout

SUPPLEMENT 3 – Competition Model Photographs



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